

REMARKS

Applicants have amended claims 2 and 3 to promote clarity, corrected minor deficiencies in claims 1, 6, and 7, and added new claims 8-11. Support for new claims 8-10 can be found at page 18, lines 7-12 of the Specification. Support for new claim 11 can be found in original claim 1. No new matter has been introduced by the above amendments.

Claims 1-11 are currently pending. Reconsideration of the application, as amended, is requested in view of the remarks below.

Rejection under 35 U.S.C. § 112, 2nd paragraph

The Examiner rejected claims 1-7 as being indefinite. Specifically, the Examiner pointed out two deficiencies: (1) “[c]aim 1, line 1, the phrase ‘acyl type resin’ renders claims indefinite. Changing said phrase to the phrase -acrylic resin- may overcome the rejection,” and (2) “[l]ines 8-9, the parenthetical expression should be written without parenthesis.” See the Office Action, page 3, lines 5-10. Applicants have corrected these two deficiencies pursuant to the Examiner’s suggestions.

Rejection under 35 U.S.C. § 103(a)

The Examiner rejected claims 1-7 as being obvious over Sugimachi, U.S. Application 2003/0198805 (“Sugimachi”) in view of Kuwabara, U.S. Patent 6,775,059 (“Kuwabara”) and Kume et al., U.S. Patent 5,578,365 (“Kume”). See the Office Action, page 3, lines 3-5.

Independent claim 1 is discussed first. It covers a resin composition containing an acrylic resin and a dye. The acrylic resin is obtained by polymerizing at least a monomer of formula (1): $\text{CH}_2=\text{CR}-\text{COOX}$, in which R denotes a hydrogen atom or a methyl group and X denotes a hydrocarbon group of 4-25 carbon atoms. The dye has the maximum absorption at a wavelength in the range of 380-780 nm.

Sugimachi describes an optical filter that includes a dye having an adsorption peak in the wavelength range of 570-600 nm. See, e.g., the Abstract. It also describes that the dye can be added to a poly(methyl methacrylate) (PMMA) acrylic adhesive resin (see, e.g., Examples 1 and 2), which is prepared from methyl methacrylate (MMA). MMA is of the formula $\text{CH}_2=\text{C}(\text{CH}_3)-\text{COOCH}_3$ (in which the group corresponding to X in formula (1) is a hydrocarbon group

containing only one carbon atom, i.e., CH_3) and therefore is a monomer not covered by formula (1) recited in claim 1 (in which X is a hydrocarbon group containing 4-25 carbon atoms).

Kuwabara describes a near-IR absorption material that includes an adhesive layer containing a dye selectively absorbing light at 550-620 nm. See, e.g., the Abstract. The adhesive layer can also include PMMA. See, e.g., Comparative Examples 1-3. As mentioned above, PMMA is obtained from monomer MMA, which does not fall into formula (1) recited in claim 1 where X is a hydrocarbon group containing 4-25 carbon atoms. Neither Sugimachi nor Kuwabara describes a composition containing an acrylic resin prepared from a monomer of formula (1) recited in claim 1, in which X is a hydrocarbon group of 4-25 carbon atoms.

Kume describes a pressure-sensitive adhesive layer containing polybutyl acrylate, which is prepared from butyl acrylate, a monomer of formula (1) recited in claim 1.

The Examiner contended that "it would have been obvious to a person of ordinary skill in the art at the time of this invention ... to utilize disclosure of Kuwabara and Kume et al in the invention of Sugimachi to [use] Kume et al's pressure sensitive adhesive material as self adhesive material and Kuwabara's near infrared blocking film to make the optical filter for plasma display." See the Office Action, page 4, lines 1-5. It appears to be the Examiner's position that it would have been obvious to replace the adhesive resin mentioned in Sugimachi or Kuwabara (e.g., PMMA) with the adhesive resin mentioned in Kume (i.e., polybutyl acrylate) to obtain the composition of claim 1.

Even if a *prima facie* case of obviousness has been made (which Applicants do not concede), it can be successfully rebutted by an unexpected advantage of the acrylic resin recited in claim 1. As shown in Tables 3 and 4 of the Specification, each of the compositions prepared in Examples 1-14 contained an acrylic resin obtained from Synthesis Example 1-8 or 12-15, which was made from a monomer of formula (1) recited in claim 1 where X is a hydrocarbon group of 4-25 carbon atoms. These compositions all showed excellent heat resistance, humidity resistance, and stability at room temperature. See Tables 1, 2, 5, and 6, and page 43, lines 2-12 of the Specification. By contrast, each of the three compositions prepared in Comparative Examples 5-7 contained an acrylic resin obtained from Synthesis Example 11, which was

prepared from MMA¹, a monomer identical to that used to prepare the acrylic resins described in Sugimachi or Kuwabara. See Tables 2 and 7. However, these three compositions all showed inferior heat resistance, humidity resistance, and stability to the compositions prepared in Examples 1-14, which are covered by claim 1. See Table 8 and page 44, lines 14-29 of the Specification.

Given the above-mentioned unexpected advantage, claim 1 is clearly not obvious over Sugimachi in view of Kuwabara and Kume. Neither are claims 2-7, all of which depend from claim 1.

New claims

Applicants submit that new claims 8-11 are also not obvious over Sugimachi in view of Kuwabara and Kume.

Claims 8-11 depend from claim 1. As discussed above, claim 1 is not rendered obvious by these three references. Neither are claims 8-11.

Note that claim 11 is limited to an acrylic resin obtained by polymerizing a fluorine atom-containing unsaturated monomer. None of Sugimachi, Kuwabara, and Kume discloses or suggests an acrylic resin obtained by polymerizing a fluorine atom-containing unsaturated monomer, as required by claim 11. Thus, claim 11 is also not rendered obvious by these three references on this independent ground.

CONCLUSION

Applicants submit that the grounds for rejection asserted by the Examiner have been overcome, and that claims 1-11, as pending, define subject matter that is definite and nonobvious. On this basis, it is submitted that all claims are now in condition for allowance, an action of which is requested.

¹ The acrylic resin obtained in Synthesis Example 11 was prepared from 99.5 wt% MMA.

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Respectfully submitted,

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